TEST REPORT ON FINE AGGREGATES

Date. :8.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-1)- 1963 RA 2016

Material description : Sand

Date of Reciept of Sample :8.12.2022

Date of testing :8.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 1500

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	110	110	7.33	92.67	90-100
2.36	175	285	19.00	81.00	75-100
1.18	395	680	45.33	54.67	55-90
600 Micron	270	950	63.33	36.67	35-59
300 Micron	290	1240	82.67	17.33	8-30
150 Micron	165	1405	93.67	6.33	0-10

Remarks : The above tested Sample Confirms as per IS Specifications.

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TEST REPORT ON PRECAST SLAB

Date. :10.01.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** :M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name :Improvements to Roads and Drains From Dasarahalli Main Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Precast Slab 100mm thick

Date of Reciept of Sample :10.01.2023

Date of testing : 10.01.2023

TEST RESULTS

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	80.00	0.416	2648.338	1.60	0.960	28.63	14.58	15.02	14.32	17.90
2	50.00	85.00	0.417	2498.545	1.70	0.960	26.88	13.69	14.10	14.90	18.63
3	50.00	75.00	0.395	2682.291	1.50	0.960	27.86	14.19	14.61	13.56	16.95

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ಬೆಂಗಳೂರು-92

TEST REPORT ON KERB STONE

Date. :29.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name :Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Kerb Stone - M20

Date of Reciept of Sample :29.12.2022

Date of testing :29.12.2022

TEST RESULTS

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	75.50	0.386	2603.817	1.51	0.960	32.43	16.52	17.84	17.12	21.41
2	50.00	70.50	0.398	2875.174	1.41	0.960	33.52	17.07	18.44	17.70	22.12
3	50.00	80.00	0.411	2616.507	1.60	0.960	34.21	17.42	18.82	18.06	22.58

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TEST REPORT ON CONCRETE CUBES

Date. :27.3.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Cement Concrete

Age of Concrete : 7 Days

Grade of Concrete : M30

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.3.2023	27.3.2023	8.385	515.5	22.91
2	20.3.2023	27.3.2023	8.370	518.6	23.05
3	20.3.2023	27.3.2023	8.355	525.3	23.35

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ಬೆಂಗಳೂರು-92

TEST REPORT ON CONCRETE CUBES

Date. :27.3.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Cement Concrete

Age of Concrete : 7 Days

Grade of Concrete : M30

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.3.2023	27.3.2023	8.300	520.5	23.13
2	20.3.2023	27.3.2023	8.301	515.1	22.89
3	20.3.2023	27.3.2023	8.335	525.2	23.34

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TEST REPORT ON CONCRETE CUBES

Date.	:27.3.2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name	: Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference	EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 516 - 1959 RA 2018
Material description	: Cement Concrete
Age of Concrete	: 7 Days
Grade of Concrete	: M30

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.3.2023	27.3.2023	8.302	505.8	22.48
2	20.3.2023	27.3.2023	8.301	522.4	23.22
3	20.3.2023	27.3.2023	8.310	518.4	23.04

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TEST REPORT ON CONCRETE CUBES

Date. :17.4.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Project Name : Improvements to Roads and Drains at Hegadenagara Eastern Side Balance Cross Roads in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Cement Concrete

Age of Concrete : 28 Days

Grade of Concrete : M30

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.3.2023	17.4.2023	8.360	755.5	33.58
2	20.3.2023	17.4.2023	8.355	723.4	32.15
3	20.3.2023	17.4.2023	8.320	720.2	32.01

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TEST REPORT ON CONCRETE CUBES

Date. :17.4.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Project Name : Improvements to Roads and Drains at Hegadenagara Eastern Side Balance Cross Roads in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Cement Concrete

Age of Concrete : 28 Days

Grade of Concrete : M30

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.3.2023	17.4.2023	8.310	729.4	32.42
2	20.3.2023	17.4.2023	8.300	730.5	32.47
3	20.3.2023	17.4.2023	8.315	745.8	33.15

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TEST REPORT ON CONCRETE CUBES

Date. :17.4.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Cement Concrete

Age of Concrete : 28 Days

Grade of Concrete : M30

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.3.2023	17.4.2023	8.315	730.8	32.48
2	20.3.2023	17.4.2023	8.316	745.2	33.12
3	20.3.2023	17.4.2023	8.325	730.6	32.47

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TEST REPORT ON CEMENT

Date. :8.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1 st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru -560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS-4031 (Part -1, 3, 4, 5 & 6) 1988 (RA-2014)

Material description : Birla Super OPC 53 grade Cement

Date of Reciept of Sample :8.12.2022

Date of testing :8.12.2022

TEST RESULTS

Sl.No	Physical Parameters	Test Results	Requirements as per IS: 269-2020
1	Consistancy	31.00%	-
2	Initial Setting Time	140 minutes	Not Less than 30 Minutes
3	Final Setting Time	320 minutes	Not More than 600 Minutes
4	Soundness by Le - Chatelier's Method	2 mm	Not more than 10mm
5	Fineness by Dry Sieving Method	5.50%	Not more than 10%

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TEST REPORT ON COARSE AGGREGATES

Date. :8.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main,
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-1)- 1963 RA 2016
Material description : 40mm Coarse Aggregates
Date of Reciept of Sample :8.12.2022
Date of testing :8.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 15000

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Requirements as per IS 383:2021
80	0	0	0	100	100
40	520	520	3.47	96.53	95-100
20	8255	8775	58.50	41.50	30-70
10	3350	12125	80.83	19.17	10-35
4.75	2585	14710	98.07	1.93	0-5

Remarks : The above tested Sample Confirms as per IS Specifications.

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ಬೆಂಗಳೂರು-92

TEST REPORT ON COARSE AGGREGATES

Date. :8.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-1)- 1963 RA 2016

Material description : 20mm Coarse Aggregates

Date of Reciept of Sample :8.12.2022

Date of testing :8.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 5000

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Requirements as per IS 383:2021
40	0	0	0	100	100
20	222	222	4.44	95.56	95-100
10	2721	2943	58.86	41.14	25-55
4.75	1810	4753	95.06	4.94	0-10

Remarks : The above tested Sample Confirms as per IS Specifications.

Notes:-

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Location :Amruthalli
Material description : Wet Mix Macadam
Date of Reciept of :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	15.00%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	12.15%	
	Combined Flakiness & Elongation	**27.15%**	

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ಕೆಂಪೇಗೌಡ ಉಪವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date. :29.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Location :Amruthalli
Material description : Wet Mix Macadam
Date of Reciept of :29.12.2022
Date of testing :29.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	15.25%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	11.30%	
	Combined Flakiness & Elongation	**26.55%**	

Notes:-

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SHIPRAMA Consulting Engineers Pvt. Ltd. Bangalore

TEST REPORT ON AGGREGATE IMPACT VALUE OF WET MIX MACADAM

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Location :Amruthalli

Material description : Wet Mix Macadam

Date of Reciept of :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	385	375	382	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	85	82	84	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	293	298	
4	Aggregate Impact value = percent fines	22.08	21.87	21.99	
	100* (W_2/W_1)%				**21.98**

Remarks: Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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SHIPRAMA Consulting Engineers Pvt. Ltd. Bangalore

TEST REPORT ON AGGREGATE IMPACT VALUE OF WET MIX MACADAM

Date. :29.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Location :Amruthalli
Material description : Wet Mix Macadam

Date of Reciept of :29.12.2022
Date of testing :29.12.2022

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	388	374	386	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	85	84	84	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	303	290	302	
4	Aggregate Impact value = percent fines	21.91	22.46	21.76	
	100* (W_2/W_1)%				**22.04**

Remarks: Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Location :Amruthalli
Material description : Wet Mix Macadam
Date of Reciept of :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	520	520	3.04	96.96	95-100
22.4	3684	4204	24.55	75.45	60-80
11.2	3279	7483	43.70	56.30	40-60
4.75	3534	11017	64.33	35.67	25-40
2.36	2769	13786	80.50	19.50	15-30
0.6	1513	15299	89.34	10.66	8-22
0.075	1570	16869	98.51	1.49	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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Shiprama Consulting Engineers Pvt. Ltd. Bangalore

TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Location :Amruthalli
Material description : Wet Mix Macadam

Date of Reciept of :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	524	524	3.06	96.94	95-100
22.4	3755	4279	24.99	75.01	60-80
11.2	3456	7735	45.17	54.83	40-60
4.75	3765	11500	67.15	32.85	25-40
2.36	2971	14471	84.50	15.50	15-30
0.6	1010	15481	90.40	9.60	8-22
0.075	1412	16893	98.65	1.35	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :29.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Location :Amruthalli
Material description : Wet Mix Macadam
Date of Reciept of :29.12.2022
Date of testing :29.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	522	522	3.05	96.95	95-100
22.4	3590	4112	24.01	75.99	60-80
11.2	3195	7307	42.67	57.33	40-60
4.75	3655	10962	64.01	35.99	25-40
2.36	2910	13872	81.00	19.00	15-30
0.6	1655	15527	90.67	9.33	8-22
0.075	1411	16938	98.91	1.09	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :29.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Location :Amruthalli
Material description : Wet Mix Macadam
Date of Reciept of :29.12.2022
Date of testing :29.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	517	517	3.02	96.98	95-100
22.4	3545	4062	23.72	76.28	60-80
11.2	3166	7228	42.21	57.79	40-60
4.75	3625	10853	63.38	36.62	25-40
2.36	2856	13709	80.05	19.95	15-30
0.6	1545	15254	89.07	10.93	8-22
0.075	1641	16895	98.66	1.34	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Location :Amruthalli

Material description : Wet Mix Macadam

Date of Reciept of :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.50	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬೆಂಗಳೂರು-92

TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers.

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Location :Amruthalli

Material description : Wet Mix Macadam

Date of Reciept of :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.55	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬೆಂಗಳೂರು-92

TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date.	:29.12.2022
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name	: Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference	EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13
Location	:Amruthalli
Material description	: Wet Mix Macadam
Date of Reciept of	:29.12.2022
Date of testing	:29.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.45	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬೆಂಗಳೂರು-92

TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :29.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Location :Amruthalli

Material description : Wet Mix Macadam

Date of Reciept of :29.12.2022

Date of testing :29.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.85	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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ಬೆಂಗಳೂರು-92

TEST REPORT ON STABILITY OF MIX

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

Location : Amruthalli

PMC Name : Shiprama Consulting Engineers

Technical Reference : MORTH Table 500-11

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH (Table 500-11)
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.6	9.73	9 Kn (min)
2	Marshal flow, mm	2.65	2.74	2 – 4
3	Percent air voids in Mix	3.64	3.85	3 – 5
4	Percent voids in mineral aggregates	11.72	11.54	10-12
5	Percent voids filled with Bitumen	70.19	70.5	65 – 75
6	Density, g/cc	2.25	2.27	-

Notes:-

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***** End of the Report *****

TEST REPORT ON STABILITY OF MIX

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
Location : Amruthalli
PMC Name : Shiprama Consulting Engineers
Technical Reference : MORTH Table 500-11
Material description : Dense Graded Bituminous Macadam
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH (Table 500-11)
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.8	9.7	9 Kn (min)
2	Marshal flow, mm	2.65	2.72	2 – 4
3	Percent air voids in Mix	3.64	3.85	3 – 5
4	Percent voids in mineral aggregates	11.75	11.6	10-12
5	Percent voids filled with Bitumen	70.14	70.2	65 – 75
6	Density, g/cc	2.24	2.26	-

Notes:-
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***** End of the Report *****

TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name :Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-10
Material description : Dense Graded Bituminous Macadam
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3724.0	3725.0
2	Weight of Empty Basket suspended in Water (in gms)	A2	2474.0	2473.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1250.0	1252.0
4	Weight of saturated surface dry aggregate in air (in gms)	B	2007	2008
5	Weight of oven dry Aggregate (in gms)	C	1996.5	1998.0

Result :	1. Specific gravity = (C/B-A)	2.64	2.64
	2. Water Absorption in Percentage = (B-C*100/C)	0.53	0.50

Remarks: Maximum allowable Aggregate Water absorption value for Dense Graded Bituminous Macadam is 2.0%

Notes:-

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***** End of the Report *****

TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name :Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-10
Material description : Dense Graded Bituminous Macadam
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3722.0	3722.0
2	Weight of Empty Basket suspended in Water (in gms)	A2	2475.0	2475.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1247.0	1247.0
4	Weight of saturated surface dry aggregate in air (in gms)	B	2007	2008
5	Weight of oven dry Aggregate (in gms)	C	1996.0	1998.0
Result :	1. Specific gravity = (C/B-A)		2.63	2.63
	2. Water Absorption in Percentage = (B-C*100/C)		0.55	0.50

Remarks: Maximum allowable Aggregate Water absorption value for Dense Graded Bituminous Macadam is 2.0%

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***** End of the Report *****

TEST REPORT ON FLAKINESS & ELONGATION

Date.	:30.12.2022
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name	: Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference	:EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-13
Material description	: Dense graded Bituminous Macadam
Date of Reciept of Sample	:30.12.2022
Date of testing	:30.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Flakiness Index	16.40%	Maximum allowable Flakiness & Elongat Dense graded Bituminous Macadam is 35%
2	Elongation Index	12.10%	
	Combined Flakiness & Elongation	**28.50%**	

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ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರ ಕಛೇರಿ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON FLAKINESS & ELONGATION

Date.	:30.12.2022
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name	: Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference	:EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-13
Material description	: Dense graded Bituminous Macadam
Date of Reciept of Sample	:30.12.2022
Date of testing	:30.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Flakiness Index	16.25%	Maximum allowable Flakiness & Elongat Dense graded Bituminous Macadam is 35%
2	Elongation Index	11.30%	
	Combined Flakiness & Elongation	**27.55%**	

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ಬೆಂಗಳೂರು-92

TEST REPORT ON BITUMEN

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 73 -2013
Material description : VG 30 Bitumen
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Dense Bituminous Macadam

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	58	Min 45
2	Softening point, ^{0}C	49	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	363	Min. 220

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TEST REPORT ON BITUMEN

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 73 -2013

Material description : VG 30 Bitumen

Date of Reciept of Sample :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Dense Bituminous Macadam

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	58	Min 45
2	Softening point, ^{0}C	48	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	365	Min. 220

Notes:-

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DETERMINATION OF RATE OF SPREAD PRIME COAT

Date. :30.12.2022
***Client Name** : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
Contractor Name : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
Location : Amruthalli
PMC Name : Shiprama Consulting Engineers
Date of testing :30.12.2022

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2024	0.2024
Intial Wt of empty Plate (b)	Kg	1.629	1.629
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.768	1.768
Weight of Prime/Tack Coat (d=c-b)	Kg	0.1390	0.1390
Rate of spread of prime /tack coat	kg/Sq.m	0.687	0.687
Average	kg/Sq.m	0.687	
Specified Limit	kg/Sq.m	0.60 Kg/sq.m	

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

DETERMINATION OF RATE OF SPREAD PRIME COAT

Date. :30.12.2022

***Client Name** : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

Contractor Name : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

Location :Amruthalli

PMC Name : Shiprama Consulting Engineers

Date of testing :30.12.2022

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2023	0.2023
Intial Wt of empty Plate (b)	Kg	1.628	1.629
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.768	1.768
Weight of Prime/Tack Coat (d=c-b)	Kg	0.1400	0.1390
Rate of spread of prime /tack coat	kg/Sq.m	0.692	0.687
Average	kg/Sq.m	0.690	
Specified Limit	kg/Sq.m	0.60 Kg/sq.m	

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ಬೆಂಗಳೂರು-92

TEST REPORT ON AGGREGATE IMPACT VALUE

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH table 500-10
Material description : Dense Graded Bituminous Macadam
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	391	388	390	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	90	91	89	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	297	301	
4	Aggregate Impact value = percent fines	23.02	23.45	22.82	
	100* (W_2/W_1)%				**23.10**

Remarks : Maximum allowable Aggregate Impact value for Dense Graded Bituminous Macadam is 27%

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***** End of the Report *****

TEST REPORT ON AGGREGATE IMPACT VALUE

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH table 500-10
Material description : Dense Graded Bituminous Macadam
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	388	384	385	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	90	91	93	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	298	293	292	
4	Aggregate Impact value = percent fines	23.20	23.70	24.16	
	100* (W_2/W_1)%				**23.68**

Remarks : Maximum allowable Aggregate Impact value for Dense Graded Bituminous Macadam is 27%

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***** End of the Report *****

TEST REPORT ON GRADATION

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
Location : Amruthalli
Source of Sample : At Site
Technical Reference : IS 2720 (Part-4)- 1985 RA 2016, MORTH Table 500-10
Material description : Dense Graded Bituminous Macadam
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 13124

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	492	492	3.75	96.25	90 - 100
19	2352	2844	21.67	78.33	71 - 95
13.2	2570	5414	41.25	58.75	56 - 80
4.75	2650	8064	61.44	38.56	38 - 54
2.36	1380	9444	71.96	28.04	28 - 42
0.3	2393	11837	90.19	9.81	7 - 21
0.075	645	12482	95.11	4.89	2 - 8

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-10, Grading II

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***** End of the Report *****

TEST REPORT ON GRADATION

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

Location : Amruthalli

Source of Sample : At Site

Technical Reference : IS 2720 (Part-4)- 1985 RA 2016, MORTH Table 500-10

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 13124

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	498	498	3.79	96.21	90 - 100
19	2365	2863	21.81	78.19	71 - 95
13.2	2567	5430	41.37	58.63	56 - 80
4.75	2644	8074	61.52	38.48	38 - 54
2.36	1385	9459	72.07	27.93	28 - 42
0.3	2391	11850	90.29	9.71	7 - 21
0.075	643	12493	95.19	4.81	2 - 8

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-10, Grading II

Notes:-

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***** End of the Report *****

Total Wt. of Aggregates in gms 476.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	31.5	31.5	6.61	93.39	90 - 100
19	52.2	83.7	17.57	82.43	71 - 95
13.2	35.9	119.6	25.10	74.90	56 - 80
4.75	125.6	245.2	51.46	48.54	38 - 54
2.36	68.4	313.6	65.81	34.19	28 - 42
0.3	85.6	399.2	83.78	16.22	7 - 21
0.075	48.4	447.6	93.93	6.07	2 - 8

Total Wt. of Aggregates in gms 476

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	32.6	32.6	6.85	93.15	90 - 100
19	59.6	92.2	19.37	80.63	71 - 95
13.2	36.5	128.7	27.04	72.96	56 - 80
4.75	129.8	258.5	54.31	45.69	38 - 54
2.36	64.5	323	67.86	32.14	28 - 42
0.3	83.5	406.5	85.40	14.60	7 - 21
0.075	54.4	460.9	96.83	3.17	2 - 8

Notes:-

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ಕೊಡಿಗೇಹಳ್ಳಿ ಉಪವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR DENSE GRADED BITUMINOUS MACADAM

Date. :31.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

Location : Amruthalli

Source of Sample : At Site

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :31.12.2022

Date of testing :31.12.2022

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	476.5	476
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	23.5	24.00
7. Bitumen content in %	4.70	4.80
8. Average	**4.75**	

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಟೀಕಾಗಡ್ಡಳ್ಳಿ ಉಪವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

Total Wt. of Aggregates in gms 475

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	32.5	32.5	6.84	93.16	90 - 100
19	51.2	83.7	17.62	82.38	71 - 95
13.2	36.8	120.5	25.37	74.63	56 - 80
4.75	125.2	245.7	51.73	48.27	38 - 54
2.36	68.5	314.2	66.15	33.85	28 - 42
0.3	85.9	400.1	84.23	15.77	7 - 21
0.075	45.3	445.4	93.77	6.23	2 - 8

Total Wt. of Aggregates in gms 478

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	31.4	31.4	6.57	93.43	90 - 100
19	58.6	90	18.83	81.17	71 - 95
13.2	36.2	126.2	26.40	73.60	56 - 80
4.75	129.5	255.7	53.49	46.51	38 - 54
2.36	62.9	318.6	66.65	33.35	28 - 42
0.3	82.4	401	83.89	16.11	7 - 21
0.075	55.5	456.5	95.50	4.50	2 - 8

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR DENSE GRADED BITUMINOUS MACADAM

Date. :31.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

Location : Amruthalli

Source of Sample : At Site

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :31.12.2022

Date of testing :31.12.2022

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	475	478
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	25	22.00
7. Bitumen content in %	5.00	4.40
8. Average	**4.70**	

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ಬೆಂಗಳೂರು-92

DETERMINATION OF RATE OF SPREAD TACK COAT

Date. :22.02.2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura, Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Location :Amruthalli
Date of testing :22.02.2023

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2027	0.2027
Intial Wt of empty Plate (b)	Kg	1.629	1.628
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.685	1.687
Weight of Prime/Tack Coat (d=c-b)	Kg	0.0560	0.0590
Rate of spread of prime /tack coat	kg/Sq.m	0.276	0.291
Average	kg/Sq.m	0.284	
Specified Limit	kg/Sq.m	0.25 Kg/sq.m	

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ಬೆಂಗಳೂರು-92

DETERMINATION OF RATE OF SPREAD TACK COAT

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura, Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Location :Amruthalli
Date of testing :30.12.2022

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2029	0.2029
Intial Wt of empty Plate (b)	Kg	1.628	1.629
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.686	1.687
Weight of Prime/Tack Coat (d=c-b)	Kg	0.0580	0.0580
Rate of spread of prime /tack coat	kg/Sq.m	0.286	0.286
Average	kg/Sq.m	0.286	
Specified Limit	kg/Sq.m	0.25 Kg/sq.m	

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON STABILITY OF MIX

Date. :22.02.2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :22.02.2023
Date of testing :22.02.2023

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.80	10.11	9 Kn (min)
2	Marshal flow, mm	2.54	2.30	2 – 4
3	Percent air voids in Mix	12.19	12.54	11 – 13
4	Percent voids in mineral aggregates	4.34	4.20	3 – 5
5	Percent voids filled with Bitumen	68.35	69.55	65 - 75
6	Density, g/cc	2.24	2.25	-

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON STABILITY OF MIX

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : MORTH Table 500-17

Material description : Bituminous Concrete

Date of Reciept of Sample :30.12.2022

Date of testing :30.12.2022

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.71	10.15	9 Kn (min)
2	Marshal flow, mm	2.55	2.49	2 – 4
3	Percent air voids in Mix	12.52	12.51	11 – 13
4	Percent voids in mineral aggregates	4.30	4.20	3 – 5
5	Percent voids filled with Bitumen	69.50	69.55	65 - 75
6	Density, g/cc	2.25	2.26	-

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TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :22.02.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** :M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-17

Material description : Bituminous Concrete

Date of Reciept of Sample :22.02.2023

Date of testing :22.02.2023

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3737.0	3736.0
2	Weight of Empty Basket suspended in Water (in gms)	A2	2454.0	2463.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1283.0	1273.0
4	Weight of saturated surface dry aggregate in air (in gms)	B	2006	2007
5	Weight of oven dry Aggregate (in gms)	C	1995.0	1997.0

Result :	1. Specific gravity = (C/B-A)	2.76	2.72
	2. Water Absorption in Percentage = (B-C*100/C)	0.55	0.50

Remarks: Maximum allowable Aggregate Water absorption value for Bituminous Concrete is 2.0%

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TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** :M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference :EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3735.0	3736.5
2	Weight of Empty Basket suspended in Water (in gms)	A2	2455.0	2467.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1280.0	1269.5
4	Weight of saturated surface dry aggregate in air (in gms)	B	2008	2009
5	Weight of oven dry Aggregate (in gms)	C	1996.0	1997.0

Result : 1. Specific gravity = (C/B-A) 2.74 2.70
2. Water Absorption in Percentage = (B-C*100/C) 0.60 0.60

Remarks: Maximum allowable Aggregate Water absorption value for Bituminous Concrete is 2.0%

Notes:-
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TEST REPORT ON FLAKINESS & ELONGATION

Date. :22.02.2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura, Beng 560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :22.02.2023
Date of testing :22.02.2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 500-17
1	Flakiness Index	16.30%	Maximum allowable Flakiness & Elongation Index for Bituminous Concrete is 30%
2	Elongation Index	12.20%	
	Combined Flakiness & Elongation	**28.50%**	

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON FLAKINESS & ELONGATION

Date. :30.12.2022

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura, Beng 560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 500-17
1	Flakiness Index	16.50%	Maximum allowable Flakiness & Elongation Index for Bituminous Concrete is 30%
2	Elongation Index	12.55%	
	Combined Flakiness & Elongation	**29.05%**	

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-95

TEST REPORT ON BITUMEN

Date.	:22.02.2022
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name	: Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference	: EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 73 -2013
Material description	: VG 30 Bitumen
Date of Reciept of Sample	:22.02.2022
Date of testing	:22.02.2022

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Bituminous Concrete

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	58	Min 45
2	Softening point, ^{0}C	48	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	362	Min. 220

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TEST REPORT ON BITUMEN

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 73 -2013
Material description : VG 30 Bitumen
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Bituminous Concrete

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	57	Min 45
2	Softening point, ^{0}C	49	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	365	Min. 220

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ಬೆಂಗಳೂರು-92

TEST REPORT ON AGGREGATE IMPACT VALUE

Date. :22.02.2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2020, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :22.02.2023
Date of testing :22.02.2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	375	374	377	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	82	85	81	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	293	289	296	
4	Aggregate Impact value = percent fines	21.87	22.73	21.49	
	100* (W_2/W_1)%				22.03

Remarks: Maximum allowable Aggregate Impact value for Bituminous Concrete is 24%

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON AGGREGATE IMPACT VALUE

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2020, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	377	375	378	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	84	83	81	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	293	292	297	
4	Aggregate Impact value = percent fines	22.28	22.13	21.43	
	100* (W_2/W_1)%				**21.95**

Remarks: Maximum allowable Aggregate Impact value for Bituminous Concrete is 24%

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ಬೆಂಗಳೂರು-92

TEST REPORT ON GRADATION

Date. :22.02.2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2020, MORTH Table 500-17
Location :Amruthalli
Material description : Bituminous Concrete
Sample :22.02.2023
Date of testing :22.02.2023

TEST RESULTS

Total Wt. of Aggregates in gms 5100

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	222	222	4.35	95.65	90- 100
9.5	730	952	18.67	81.33	70 - 88
4.75	855	1807	35.43	64.57	53 - 71
2.36	430	2237	43.86	56.14	42 - 58
1.18	519	2756	54.04	45.96	34 - 48
0.6	535	3291	64.53	35.47	26 - 38
0.3	445	3736	73.25	26.75	18 - 28
0.15	455	4191	82.18	17.82	12 - 20
0.075	452	4643	91.04	8.96	4 - 10

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

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ಕೊಡಿಗೇಹಳ್ಳಿ ಉಪವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-92

TEST REPORT ON GRADATION

Date. :30.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2020, MORTH Table 500-17
Location :Amruthalli
Material description : Bituminous Concrete
Sample :30.12.2022
Date of testing :30.12.2022

TEST RESULTS

Total Wt. of Aggregates in gms 5100

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	220	220	4.31	95.69	90- 100
9.5	726	946	18.55	81.45	70 - 88
4.75	856	1802	35.33	64.67	53 - 71
2.36	420	2222	43.57	56.43	42 - 58
1.18	528	2750	53.92	46.08	34 - 48
0.6	552	3302	64.75	35.25	26 - 38
0.3	445	3747	73.47	26.53	18 - 28
0.15	495	4242	83.18	16.82	12 - 20
0.075	453	4695	92.06	7.94	4 - 10

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

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Total Wt. of Aggregates in gms 470.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	30.6	30.6	6.50	93.50	90- 100
9.5	65.1	95.7	20.34	79.66	70 - 88
4.75	83.5	179.2	38.09	61.91	53 - 71
2.36	58.3	237.5	50.48	49.52	42 - 58
1.18	43.1	280.6	59.64	40.36	34 - 48
0.6	26.5	307.1	65.27	34.73	26 - 38
0.3	49.7	356.8	75.83	24.17	18 - 28
0.15	36.2	393	83.53	16.47	12 - 20
0.075	44.2	437.2	92.92	7.08	4 - 10

Total Wt. of Aggregates in gms 469.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	32.2	32.2	6.86	93.14	90- 100
9.5	45.5	77.7	16.55	83.45	70 - 88
4.75	86.5	164.2	34.97	65.03	53 - 71
2.36	65.4	229.6	48.90	51.10	42 - 58
1.18	79.6	309.2	65.86	34.14	34 - 48
0.6	28.6	337.8	71.95	28.05	26 - 38
0.3	35.3	373.1	79.47	20.53	18 - 28
0.15	23.8	396.9	84.54	15.46	12 - 20
0.075	55.3	452.2	96.32	3.68	4 - 10

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ಬೆಂಗಳೂರು-92

TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR BITUMINOUS CONCRETE

Date. :23.02.2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097

Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.

Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH

Location :Amruthalli

Material description : Bituminous Concrete

Sample :31.12.2022

Date of testing :31.12.2022

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	470.5	469.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	29.50	30.50
7. Bitumen content in %	5.90	6.10
8. Average	**6.00**	

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ಬೆಂಗಳೂರು-92

Total Wt. of Aggregates in gms 469.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	30.6	30.6	6.52	93.48	90- 100
9.5	65.4	96	20.45	79.55	70 - 88
4.75	92.6	188.6	40.17	59.83	53 - 71
2.36	81.5	270.1	57.53	42.47	42 - 58
1.18	37.7	307.8	65.56	34.44	34 - 48
0.6	27.9	335.7	71.50	28.50	26 - 38
0.3	41.1	376.8	80.26	19.74	18 - 28
0.15	27.5	404.3	86.11	13.89	12 - 20
0.075	35.5	439.8	93.67	6.33	4 - 10

Total Wt. of Aggregates in gms 472

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	32.5	32.5	6.89	93.11	90- 100
9.5	46.6	79.1	16.76	83.24	70 - 88
4.75	85.7	164.8	34.92	65.08	53 - 71
2.36	72.6	237.4	50.30	49.70	42 - 58
1.18	67.6	305	64.62	35.38	34 - 48
0.6	35.1	340.1	72.06	27.94	26 - 38
0.3	34.5	374.6	79.36	20.64	18 - 28
0.15	30.6	405.2	85.85	14.15	12 - 20
0.075	36.7	441.9	93.62	6.38	4 - 10

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TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR BITUMINOUS CONCRETE

Date. :31.12.2022
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name** : M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at From Dasarahalli Mian Road to Coffee Board Layout Main Road in Ward no: 07 Bytarayanapura Sub Division.
Letter Reference : EE/BTP/BBMP/E-PMT/10/2022-23, Dated:04-07-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH
Location :Amruthalli
Material description : Bituminous Concrete
Sample :31.12.2022
Date of testing :31.12.2022

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	469.5	472
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	30.50	28.00
7. Bitumen content in %	6.10	5.60
8. Average	**5.85**	

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